CLEVELAND CLIFFS #5984

MISCELLANEOUS CORPORATE DOCUMENTS

CLEVELAND CLIFFS #5984

1963 CORPORATE DOCUMENTS

January 1963

ANNUAL REPORT

MILWAUKEE SOLVAY COKE COMPANY, INC.

YEAR 1962

The Coke Company was purchased June 1, 1962, by Pickands Mather & Co., Snelling S. Robinson, President.

Operations for the seven month period resulted in the carbonization of 219,662 tons of coal. The plant operated the 200 ovens at a 48 hour coking cycle, on a three shift 7 day per week basis, 1,026 tons of coal per day. Foundry coke sales approached production. Crushed Coke and Breeze sales were considerably less than production. Coal chemicals moved as produced.

The Chicago and North Western Railroad strike during the month of September created a serious coke stocking problem. Our coke storage yard is separated from the producing plant by the C&NW railroad tracks, therefore, all movement of stock coke is handled by the C&NW Railroad. Since they were on strike no coke moved to storage. The coke production, to meet foundry sales, continued on a normal basis. The excess -3" coke, which was not sold but produced, was stocked in cars furnished by the other railroad serving us--The Milwaukee Road. Since stocking continued for a complete month, approximately 80 cars were held on track establishing a large demurrage bill. We are presently discussing the demurrage bill with the two railroads attempting to work out a settlement by mutual agreement.

A survey of the Koppers ovens was made by Madison-MacLean and Co., Coke Oven Consultants, during October and November. The report as a whole states that the Koppers ovens are in good operating condition but a continued patching program and end-flue repair work is necessary. The report expresses concern over the gauging of the first and second lines on both walls in about 10 per cent of the ovens. We are presently investigating a new type pusher ram shoe which should relieve the movement of the coke between the ram and wall during the pushing operation thereby preventing further gauging. Also, we are evaluating the possibility of installing false floors in a few of the ovens when the gaugingis excessive. Our plan for the Koppers ovens is to continue our wall patching, floor flushing, and end-flue repairs. The end-flue program should continue on the basis of complete rebuilding concluded at the end of 1967--14 ovens per year at a cost of approximately $50,000 per year.

Solvay oven patching will continue when necessary. The Solvay relining program,after the four relining in 1963, will continue at an average rate of three relinings per year until 1971.

With the conclusion of the lake season, the coal unloading tower and belt line were inspected and the necessary maintenance was planned to prepare for the 1963 season. The labor department personnel was decreased.

On December 31, 1962, our labor force consisted of 338 hourly rated employees--22 non-exempt employees and 32 exempt employees.

BUDGET ITEMS IN EXCESS OF $5,000.

The following items are contemplated through the next five years:

1	"S" Coal belt conveyor	$ 12,000.
2	No.11 Coke belt conveyor	10,000.
3	60-65 Ton locomotive (used)	25,000.
4	Remote control of locomotive	16,000.
5	Dock dredging	10,000.
6	Boat tractor	10,000.
7	No.3 coal unloading tower bucket	10,000.
8	Repair coal pulverizer building foundation	20,000.
9	Replace coke quenching car	45,000.
10	Replace coke stocking and reclaiming truck	12,000.
11	Replace coal packing tractor	18,000.
12	Replace "Michigan" front-end loader	23,000.
13	Overhaul mill water pump turbine	12,000.
14	Painting three coal unloading towers	12,000.
	Total	$235,000.

These items are in addition to the Koppers and Solvay repairing relining programs. The Koppers budget - $50,000. per year; Solvay - $42,000. per year.

NEW INSTALLATION AND IMPROVEMENTS

A truck loading ramp was installed to handle truck coke by piggy-back. It is working satisfactorily. All truck hauling proceeded very well in spite of the extreme winter. Constructed a new roadway to the foundry loading booms to facilitate direct truck loading.

Started modernizing the electrical equipment for the Coal Handling department--mixing table and pulverizers. This will be completed in 1963. An automatic plastometer was purchased for the laboratory to expedite the work. Semi-automatic lubrication and remote control of the coal stacking and reclaiming bridge was installed--working satisfactorily.

Lunch room facilities for the Koppers ovens men were improved.

COAL TESTING

Ran a ten day test of Blue Boy-Algoma-Anthrafine mix to evaluate the yield of foundry coke. Yield was 64.7%, an increase of 6.7% over the present coals. The price of the test coals with the low by-product yields did not warrant the purchase of the coals. We should consider further testing because indications point to a lower coal price, which will make the mix profitable.

Also tested Splash Dam seam coals. These coals used in small percentages, up to 23% in the mix, would be economically feasible but the high ash would increase our foundry coke ash and drop the fixed carbon--question of customer reaction.

CHANGES IN ACCOUNTING METHOD

The old Coke Company had assigned values of $12.50 per ton for egg, range, and nut coke placed in inventory, $7.50 per ton for pea, $7.00 per ton for buckwheat, and $5.00 per ton for breeze. In September 1962, this practice was discontinued and by-product accounting was substituted retroactive to June 1, in which no value is assigned to -3" coke or chemical by-products placed in inventory, the proceeds of sales being credited to the cost of production of foundry coke. The effect during the seven months of operation in 1962 was to decrease profit before taxes by about $95,000., with a corresponding reduction in the balance sheet values of the inventory.

DEPRECIATION

At the time of the purchase of the Coke Plant, the method of depreciation selected for plant and equipment was the straight line method with a ten year life. Later in the year, however, the Internal Revenue Service promulgated new depreciation guidelines, which permitted the use on the majority of the items purchased June 1, 1962, of the 150% declining balance method of depreciation on a 12 year life, which makes the effective rate of depreciation 12½% for the first year compared with the 10% rate on a straight line method. The State of Wisconsin does not adopt the Federal method, however, and in computing the State income tax straight line depreciation must be used.

COAL

Coal Cost - Coal costs increased in 1962 as compared to 1961.

Type of Coal	F.O.B. Mine 1961	F.O.B. Mine 1962	Change
High Volatile	$4.85	$5.00	$0.15
Low Volatile	5.84	6.06	0.22
Anthrafine	4.80	4.85	0.05

Yield - Due to the recovery of coke from inventory, which must pass through the same screening plant as the production coke, no true yield can be shown. From short periods when production only was handled, indications are that a yield of between 58 and 59 per cent was achieved.

Direct Production Cost - Due to the change of accounting procedures, no comparison on direct cost with 1961 operation is feasible. For the seven month period, direct production cost was $3,709,982.25, on a per ton of foundry coke $29.59, on a per ton of coal coked (219,662 Tons of coal) $16.89. The 1963 annual report will show a comparison of seven months of 1962 and 1963.

SALES

Actual sales as compared to estimated sales:

Foundry coke actual was	121,706 Tons,	up	706	Tons	above estimate
Crushed coke " "	26,081 "	down	3,324	"	below "
Breeze coke " "	12,067 "	down	5,633	"	" "

By-products moved as produced with small changes in inventory.

Comments on seven months 1962 operation:

	Actual	Estimated	Increase (Decrease)
Foundry coke sales net	$3,603,692	$3,563,450	$ 40,242
Direct cost of production	3,709,982	3,658,000	51,982
Add (Deduct) Cost of Products sold from June 1 inventory	11,002	34,400	(23,397)
Coke & Chemical By-product sales	(771,185)	(884,270)	(113,085)
Foundry coke inventory (increase) decrease	(86,914)	(103,470)	(16,556)
Cost of sales	2,862,886	2,704,660	158,226
Gross margin	740,806	858,790	(117,984)
Fixed costs	682,860	706,990	(24,130)
Profit before taxes	57,946	151,800	(93,854)
Taxes on income	27,799	78,009	(50,210)
Net income	30,147	73,791	(43,644)

LABOR RELATIONS

Labor relations have been satisfactory; we have had four grievances, two concerning combining of jobs, namely, the combining of the ovens repairman and quenching car repairman machinist and the combining of the plant oiler and ovens oiler, in each case the action was precipitated by the retiring of a man in each of the two categories.

A feed-back indicates that the employees expect more from P.M.& Co. than has been forthcoming. We are considering the idea of a monthly bulletin to better inform our employees of all phases of operation and future planning.

SAFETY

Our safety record requires considerable improvement. We have been conducting bi-weekly and at present monthly foremen's safety meetings. The foremen in turn are conducting safety meetings with their men. The feed-back from our employees show definite signs of safety-mindedness. We have also instituted a compulsory safety eye-glass program. Our lost frequency rate for the first five months was 20.7, the seven months under P.M.& Co. was 17.7. The last four months with our safety program stepping into high gear was 11.6. We are confident that our employees will increase their safety-mindedness with a result in a decrease of lost time accidents.

OPERATING DATA

		Production	Sale	Inventory Increase (Decrease)
Foundry coke	(Tons)	125,400	121,706	3,694
Crushed coke	"	33,496	26,081	7,415
Breeze	"	14,409	12,067	2,342
Ammonia	(Lbs.)	465,143	672,188	(207,045)
Light Oil Products	(Gals.)	431,616	446,545	(14,929)
Tar	"	1,183,681	1,088,828	(94,853)

Net production cost (per ton foundry coke)	$ 23.52
Total cost	$ 29.13
Net sales	$ 29.61

Gas, as produced, is fired in our boilers; excess gas is flared.

CLEVELAND CLIFFS #5984

1969 CORPORATE DOCUMENTS

PICKANDS MATHER & CO.

COPY

October 1, 1969

Mr. W. J. Switaj, Manager
Operations Auditing
Diamond Shamrock Corporation
300 Union Commerce Building
Cleveland, Ohio 44115

Dear Bill:

Your letter of September 11th inquired as to what action we had taken regarding the recommendations contained in your June 9th audit report.

One of the principal areas covered was traffic, and the truck demurrage problem in particular. We have reorganized the Traffic, Purchasing and Shipping Departments with a net reduction in the staff of one person. The responsibility of rail and truck movements has been placed under a new Traffic and Shipping Supervisor. The Shipping Department now functions six days per week versus seven in the past, and up to the present time we feel that our service has not suffered. A time clock has been placed in the Shipping Department to record in and out movements of trucks which will give us a more accurate account of the time spent waiting to load.

The truck demurrage charges have been reduced substantially, but in all fairness much of this has been done due to our having inventory versus no inventory when the problem reached alarming proportions back in March. We are also making progress in scheduling truck loadings in line with production rates. Truck demurrage charges are being shown as a separate expense instead of incorporating it with total shipping expenses.

In summary, we expect that the Shipping Department will function more efficiently under our new Manager. (He was our former Assistant Purchasing Agent and Assistant Traffic Manager.)

Regarding recommendations made under the category of purchasing, all parties concerned with engineering, etc., have been advised that the Purchasing Agent should be advised of any dealings or anticipated purchases with vendors.

COPY

Regarding Accounts Payable, I have been told by Glenn Moeschberger that the original and duplicate invoices do not take the same route as the audit report indicated, and we are still continuing our past routine as we feel there is an advantage in acquainting certain parties with the value of the materials ordered.

In general, we are simplifying our accounting and shipping procedures and expect many benefits from these changes.

Very truly yours,

Geo. A. Wilkin
President

GAW/jbg

✓bcc: Mr. Jerald Lenz

PICKANDS MATHER & CO.

Interoffice Communication

To Mr. R. S. Carey - Cleveland

Date June 16, 1969

From Mr. G. A. Wilkin - Chicago

Copies to Mr. J. R. Lenz - Milwaukee

Subject Milwaukee Solvay Coke Company - Audit Report

Dear Bob:

The audit report covers a weakness in our shipping department and a demurrage problem which we had been aware of for some time. As reported, the situation reached alarming proportions early in March due to operating problems coupled with a depleted inventory. This caused truck demurrage charges to skyrocket. Corrective measures to prevent a reoccurrence of this are being undertaken.

The shipping and traffic departments are being realigned under new supervision, and we are reducing the shipping department staff by one person.

This change had been under consideration and the audit report provided the additional incentive to act.

The other recommendations that are contained in the report will be considered as well.

Our foundry coke sales by truck have grown because of the service we can offer, and we will proceed on some changes with caution to prevent an undue loss of sales which in turn would affect our profit picture.

PICKANDS MATHER & CO.

Interoffice Communication

To	Mr. R. S. Carey	**Date**	June 16, 1969
From	Mr. G. A. Wilkin	**Copies to**	Mr. J. R. Lenz
Subject	Page 2.		

In summary, I feel the report should be helpful and worth the time and effort of the people involved.

GAW

GAW/jbg

Diamond Shamrock Corporation

General Offices 300 Union Commerce Building Cleveland, Ohio 44115 Telephone 621-6100

June 9, 1969

SUMMARY OF AUDIT REPORT
NO. 69-3

Pickands Mather & Co.
Milwaukee Solvay Coke Co.

The following is a summary of audit report No. 69-3. The report is presented in its entirety on the facing pages.

TRAFFIC

Presented in two interrelated sections and a miscellaneous section.

TRAFFIC - ORGANIZATION

Traffic Department Organization

The Traffic function - equipment procurement, shipment scheduling, and shipping - under the present structure is not properly coordinated.

Recommendation:

1. Place the entire traffic function under one responsible head.

2. Reduce by one the number of personnel necessary to perform the shipping function.

Weekend Duties

Present personnel alternate weekends performing routine, but necessary, preparation of shipping documents. Time off is given the following week at time-and-a-half.

Recommendations:

Investigate the possibilities of having pre-prepared documents completed by supervisory personnel or by the carrier; or, hire a part-time clerk.

Reporting Forms

Several forms and worksheets are maintained that are unnecessary or appear to be a duplication of effort.

Recommendations:

1. Formalize, consolidate, and utilize existing shipping department forms to provide the same information as currently recorded by two worksheets and two forms.

2. Evaluate two specific switching department forms, as well as numerous other forms, for possible combination.

Procedures/Policy Manual

There is no traffic function manual at the present time.

Recommendation:

Develop and promulgate an effective Traffic Procedures and Policy Manual.

TRAFFIC - DEMURRAGE

Demurrage Costs

A comparison of the periods January 1 to March 14, 1968 to the same period in 1969 revealed a 532% increase in recorded demurrage costs.

A detailed examination of the period March 1-9, 1969, brought out numerous other facts and comparisons (Exhibits C and D of the report).

Recommendations:

1. Of primary importance is the need for an hour-by-hour scheduling of trucks.

2. More truckers should be persuaded to make greater use of the piggy-back method of loading and facilities should be increased accordingly.

Truck Arrivals

There were numerous violations of a promulgated directive that no two trucks of the same firm are to arrive closer than one hour apart.

Recommendations:

1. A closer watch should be kept and the accounting department notified on such violations.

2. Based on the minimum production/loading rates the one hour limitation is not practical and the time interval should be lengthened accordingly.

3. Until the present situation improves, trucks of the same company should be limited to a minimum arrival interval of three hours for any and all foundry sizes.

Demurrage During Scheduled Downtime

Maintenance is scheduled on Tuesday and Thursday of each week between 7 and 9:30 a.m. In February, demurrage incurred by trucks arriving during this downtime (D/T) was 43% of their total demurrage.

Recommendations:

1. Formally notify truckers of D/T.

2. Increase the D/T interval (for loading-from-production purposes only) from 6 to 10:30 a.m.

Established Demurrage Rates vs. Tariff Rates

Demurrage rates established by letter with two public carriers are contrary to their published ICC Tariff Regulations.

Recommendation:

The Cleveland Traffic and Corporate Departments should investigate to determine what, if any, liability is being incurred.

Demurrage Presentation on Financial Statements

1. Truck and rail demurrage were not shown on the statement as separate line items.

2. Rail demurrage is presented as an Administrative and General Expense.

Recommendations:

1. The latest financial statements present the demurrage costs as recommended.

2. Rail demurrage should also be presented as a Shipping Expense.

TRAFFIC - MISCELLANEOUS

Minimum Shipping Charge Expense

In 1968, $6,054 in expense was incurred due to the difference in cost of freight billed to the customer (actual weight) and the freight on a minimum weight of 18 tons.

Recommendations:

1. Minimum loaded weights should be re-established based on equipment capacities.

2. Weightometers should eventually be installed on all of the four key loading belts.

Document Preparation

1. Recording time-in and time-out information on the truck bill of lading (B/L) by hand permits costly errors.

2. Affixing to the B/L the scheduled versus the actual loading date creates, at times, an erroneous document.

Recommendation:

Install a time-date punch clock to record accurate information.

PURCHASING

Purchasing Authority

Certain procurement activities were being conducted by personnel other than the Purchasing Agent.

Recommendation:

All purchasing and vendor contacts should be made by or with the knowledge and approval of the Purchasing Agent.

ACCOUNTS PAYABLE

Accounts Payable Procedures

The processing of duplicate invoices and routing of the original invoice appears to be (in most cases) a duplication of effort.

Recommendation:

The existing procedures should be reviewed and the above mentioned items - plus any others - be deleted and/or simplified.

Refundable Errors

During the audit, we noted three clerical errors amounting to $769.15 which were brought to the attention of local personnel.

Recommendation:

Based on our findings and recommendations the total amounts have been recovered.

MISCELLANEOUS

For several firebrick purchases, B/L weights did not agree with freight bill weights, nor with company scale weights.

Recommendation:

For any purchases whose cost is based on weight, comparative records should be maintained and variances investigated.

Diamond Shamrock Corporation

General Offices 300 Union Commerce Building Cleveland, Ohio 44115 Telephone 621-6100

No. 69-3

June 9, 1969

AUDIT REPORT

Pickands Mather & Co.
Milwaukee Solvay Coke Co.

An audit at the Milwaukee Solvay Coke Co. was completed April 4, 1969. We directed our efforts in the areas of Traffic, Purchasing, and Accounts Payable.

The primary purpose of our audit was to evaluate the internal controls in the above mentioned areas. To determine what policies, procedures, and practices are in force that will assure management that transactions are being handled in keeping with the best interests of Milwaukee Solvay Coke Co. and Pickands Mather & Co.

Of particular concern was the truck-demurrage situation. Although a constant problem, at the time of and several months prior to our audit it became critical.

For the first three months of 1969, recorded demurrage costs were running at an annual rate of $87,000 compared to $36,000 for 1968. The contributing factors which led to the extra-ordinary situation were 1) little or no inventory to ship from, 2) production difficulties, and 3) personnel problems.

As a result of this audit we have included suggestions which we feel may improve the efficiency or quality of work performed. These are submitted as suggestions which, if to be implemented, may require study and investigation by local management directly concerned with the function reviewed, as well as consultation with concerned departments in Cleveland

Prior to issuance of this report, the various departments and individuals concerned, both at Milwaukee and Cleveland, were given the opportunity to review and comment on the contents of this report.

W J Switaj
W. J. Switaj

Audited By:
W. W. Jensen
J. Sherwin, Jr.

Distribution:

R. H. Armor	A. P. Mueller
K. S. Benson	J. A. Rush
R. S. Carey	W. E. Snavely
J. R. Lenz	G. A. Wilkin

TRAFFIC

This portion of the report is divided into three sections: Organization, Demurrage and Miscellaneous. However, it is important to keep in mind that the organization and demurrage problems are interrelated.

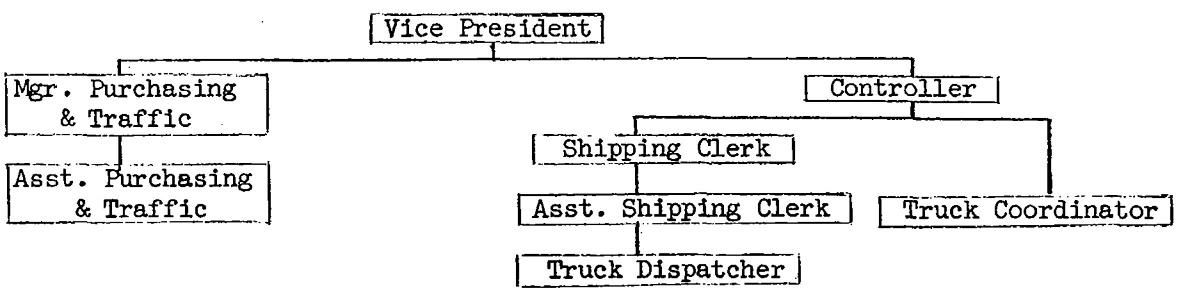
As subsequently noted, scheduling is the key to solving the demurrage problem. However, without the proper line of authority and communications, scheduling would be ineffective.

TRAFFIC - ORGANIZATION

Prior to commencing our audit, discussions with local management indicated that a personnel problem existed in the Shipping Department. Although a decision has been made to relieve or remove certain personnel from their duties, we were asked to evaluate the situation and determine the best implementation of that decision. Our study in this area produced the following findings, comments, and recommendations.

Traffic Department Organization

The present organization chart with relation to the Traffic function is depicted below:



The Manager of Purchasing & Traffic spends considerable time tracing empty and loaded railroad container cars (Milwaukee Solvay containers carried on cars from C & NW, CM St. P & P, and GT & W) and ordering various types of empties for bulk loading. He has not been involved with the trucking situation.

His assistant primarily handles routine purchasing work and some rail traffic duties.

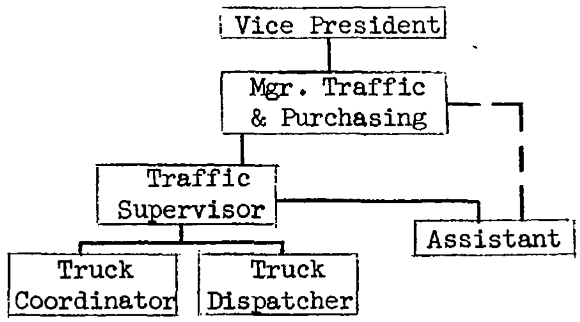
During the day shift the Shipping Department (clerk, assistant, and dispatcher) prepares loading orders, weighs trucks in and out, prepares rail and truck bills of lading (B/L's), and maintains certain production inventory records.

The Coordinator of Truck Shipments receives Chicago-originated and local orders, contacts a trucking company and gives customers required delivery data, and notifies the Shipping Department.

Our study indicated that closer coordination and communication is needed between the Traffic Department, the Shipping Department and the Truck Coordinator. Our comments on the demurrage/scheduling problem later in this report point up the need for an effective flow of responsibility for equipment procurement, fulfilling sales commitments, and the economical shipping of the product.

Recommendations:

We recommend that the Traffic function be reorganized as follows:



Under this plan the Manager of Traffic & Purchasing would be relieved of his duties relating to rail equipment and would concentrate his efforts in the area of purchasing which he now shares with his Assistant.

The Traffic Supervisor would be responsible for coordinating the activities of production, sales and shipping. He would also develop and maintain practical arrival, loading and departure schedules.

The Assistant would assume the rail equipment scheduling from the Manager and certain other traffic duties. In addition, he would be able to provide clerical assistance in the purchasing function.

The duties of the Truck Coordinator and Dispatcher would essentially remain the same except that the former would rely on the Traffic Supervisor for information relating to the scheduling of trucks.

Weekend Duties

The Shipping Clerk and his Assistant are presently alternating weekends and spending 4-5 hours each Saturday and Sunday working in the Shipping Department. Aside from the "catching up" work they do, their primary function at this time is to prepare B/L's for rail cars loaded on the weekend. The railroads servicing Milwaukee Solvay will not move a car until they have a B/L.

As a result of the above, the employees concerned are given time off during the following week at time-and-a-half which reduces the effective volume of work.

In addition, the success of inducing qualified and presently employed personnel to accept positions of responsibility under the proposed reorganization would be considerably improved if the weekend-work requirement were eliminated.

During the periods when regular Shipping Department personnel are not present the gate watchman weighs the trucks in and out and prepares truck B/L's. On one occasion we noticed a watchman was unaccountably absent and a loaded truck waited more than one-half hour before the shift foreman was made aware of the situation and weighed the truck out.

Recommendation:

There were three possible solutions considered:

1. Based on the weekend loading schedule, B/L's would be prepared ahead of time except for the date and weight:

   a. Which the shift foreman would fill in; or
   b. Which would be filled in by the railroad from the attached scale tickets.

2. Hire part-time help to prepare and/or complete B/L's for rail and truck shipments.

In our discussions with local management it was decided that all three possibilities would be investigated.

Reporting Forms

Currently, several forms and worksheets are being maintained that appear to be a duplication of effort. One worksheet is being maintained by the Shipping Department and the information is transmitted verbally to another individual to prepare a daily report. Our test work in a different area indicated that this verbal transmission of data causes unnecessary adjustment problems each month.

While no actual time study was made, it is estimated that several man-days per week are spent in maintaining these documents.

Recommendations:

We recommend that the following changes be made:

1. Formalize (printed forms vs. graph paper) the daily production accumulation sheet. In addition to truck and rail loadings for shipment of foundry and domestic coke from daily production, the form should include, separately, production to stock, stock put on belt, and stock loaded for direct shipment.

The above form would be used directly in preparing the "Daily Report of Operations" which, in addition to other information, shows production, shipments, and inventory balances. This would eliminate the need to maintain the following forms and worksheets:

   a. "Coke Loading - Shipments - Disposition, Etc." - a summary by day for each month on four cards showing shipments to and from stock by truck and rail.

   b. Worksheets labeled Domestic Production and Shipments and Production and Shipments for the Month (foundry sizes) - a summary similar to the above except they do not show the split between truck and rail.

   c. Worksheets entitled "Inventory for (month)" - a day-to-day summary of inventory fluctuations by type of coke.

2. Information (date, car/truck No., weight, grade, from product or stock) from truck and railroad B/L's is currently being posted to "Record of Coke Shipments - Contracts" which is filed by geographical location by customer.

Maintenance of the above form should be discontinued. If such a file is deemed necessary, the "Shipping Department" copy of each B/L can be filed in the same manner. For the sake of uniformity, the truck B/L should be made up in the same size as the railroad B/L when a reorder point is reached.

3. The switching department is preparing two forms - "Cars to be Released" and the "Track List" - which appear to provide almost identical information. An evaluation should be made of these two forms for possible combination.

4. The numerous other forms currently being used should also be compared and analyzed to determine their worth.

Procedures/Policy Manual

At the present time there is no manual describing the policies and procedures to be followed in administering the traffic function.

Recommendation:

In cooperation with the Cleveland Traffic Department and in keeping with the accepted recommendations of this report, such a manual should be developed and promulgated to all concerned.

TRAFFIC - DEMURRAGE

Demurrage Costs

An examination of basic records and documents revealed that truck demurrage costs, which have been increasing at a steady rate in the past two years, have reached alarming proportions in the last six months.

In 1967, truck demurrage costs totaled $24,538 or $2,045 per month. In the first 9 months of 1968 (excluding March, a strike period) these costs totaled $16,375 or $2,047 per month. However, in the last three months of 1968 the average truck demurrage cost per month was $6,281. The total for the entire year was $36,312.

As an explanation for the significant increase in the last quarter of 1968, it should be noted that during this period Milwaukee Solvay was in the process of exchanging their product storage area for a similar-sized, but more convenient, piece of property owned by one of the railroads. Anticipating a seasonal drop in sales, as well as planning a cut-back in production, management decided to meet sales requirements by shipping from inventory rather than incur the cost of transferring it to the new property. Contrary to expectations, sales increased and the effect on inventory is depicted in Exhibit A.

Whereas truck demurrage was a problem prior to this time, it reached serious proportions as inventory was reduced. This is due to the fact that while the production loading rate is relatively fixed, trucks were able to be loaded direct from inventory instead of waiting. As the ability to ship from inventory decreased, demurrage costs rose. Exhibit B depicts the monthly demurrage cost compared to tons shipped from inventory.

A comparison of amounts paid to the various truckers for the first 2½ months of 1968 and 1969 (Exhibit C) revealed that recorded demurrage costs had increased 532%.

As a result of the established facts, we selected a period, March 1 through 9, 1969, and examined in detail such information as truck B/L's, sales invoices, and various other documents.

For information purposes we have summarized the results of this examination in Exhibit D of this report.

The addition of certain other facts to the exhibited information permit the following statements:

1. Except for Jack Gray (ordered by Chicago Sales Office) the other three truckers are told by the Truck Coordinator the day the customer wants orders.

2. Glendale's demurrage costs are lowest because approximately 70% of the loads they haul are piggy-back loaded (trailers are dropped off, put on flat cars, loaded during slack period, and removed from flat cars and set aside for later pick-up).

3. Of particular interest are figures pertaining to Jack Gray Transport when compared to those of the other trucking concerns: 1) Total loads handled; 2) Average hours on property per load; 3) Total tons hauled; 4) Average demurrage cost per ton of M-4, M-3, M-2 and M-1; and 5) Net profit per ton.

Personal observations and discussions at different times with various members of local management confirmed the following statements:

1. Sales commitments at the time of our audit were greater than production; consequently, truckers were arriving to fulfill orders and waiting.

2. Drivers for Jack Gray Transport and Midwest Bulk, Inc. receive commissions based on earned revenues including demurrage. Other drivers are paid on an hourly basis.

3. While waiting to be loaded, drivers leave the property without leaving word of their whereabouts. During the audit, a Midwest Bulk driver could not be found for several hours when his truck was due to be loaded.

Recommendations:

Ultimately and of primary importance is the need for an hour-by-hour scheduling of truck arrivals. Our study revealed that during the first seven days in March 60% to 65% of the trucks that incurred demurrage arrived during the first shift. Only 20% to 25% of these same trucks arrived during the second shift.

During the period March 1-9, the average number of loadings were:

	M - 4		M - 3		M - 2	
	Piggy Back	Direct Loading	Piggy Back	Direct Loading	Piggy Back	Direct Loading
Avg. loads/weekend day	2.0	.8	2.5	2.0	1.5	.5
Total " / " "	2.8		4.5		2.0	
Avg. loads/weekday	6.0	3.8	4.0	4.0	1.8	5.0
Total " / "	9.8		8.0		6.8	
Avg. loads produced/day	15.0		9.0		9.0	

The above indicates that scheduling based on production could have handled all truck shipments with a very minimum of demurrage and still provided for a certain amount of daily rail car loadings.

More of the trucking companies should be persuaded to make greater use of the piggy-back method of loading; consequently, consideration should be given to increasing the facilities for this method of loading.

Truck Arrivals

Each trucking company has been notified that "No two trucks are to arrive for the same size closer than one hour apart unless requested by the coke plant." Our study revealed that on ten occasions this stipulation was violated and demurrage was incurred on all but one of them. There were eight additional situations where trucks arrived within $1\frac{1}{2}$ hours of each other for the same size.

On a Saturday afternoon two Midwest trucks arrived 40 minutes apart for M-2 and M-4. Total demurrage incurred: $70.70. On a Monday, two Midwest trucks arrived at 5:50 a.m. for M-2 and M-3. Total demurrage: $68.60.

Recommendations:

1. Personnel checking trucks in should be instructed to mark the accounting copy of the B/L for proper action when trucks violate the "within-the-hour" rule.

2. Considering the minimum production/loading rate (M-2 and M-3 approximately 2.3 hours and for M-4 approximately 1.5 hours) the hour limitation is not practical and the time interval should be lengthened accordingly.

3. Until such time as effective scheduling can be accomplished and/or inventories built up, trucks of the same trucking company should not be allowed to come in closer than 3 hours for direct loading of any foundry size coke.

4. Such proscriptions as the above may induce the truckers to look upon piggy-back loading more favorably.

Demurrage During Scheduled Downtime

On Tuesday and Thursday of each week, from approximately 7:00 to 9:30 a.m., maintenance is scheduled and no production loading takes place.

Although we were informed that the trucking companies were notified of this downtime (D/T), we found no documentation to this effect. On Tuesday and Thursday of our selected period, we noted several arrivals during the indicated times. Accordingly, we expanded our test in this area.

For the month of February 1968, we listed the trucks arriving between the hours of 6:00 a.m. (due to the 1 hour of free time, demurrage would start during D/T) and 9:30 a.m. on Tuesdays and Thursdays. The results were as follows:

Total demurrage time (excluding free time) 93 hours 5 minutes
Total demurrage cost $742.50
Total demurrage incurred during D/T 39 hours
Total demurrage cost during D/T $319.65

Trucks arriving within 20 minutes of 9:30 a.m. or beyond were not considered although demurrage may have been incurred as a result of a lack of accumulated production.

Recommendations:

1. Trucking companies should be formally notified of the scheduled D/T. Arrivals for loading contrary to the stated time should not be clocked-in until the D/T period is over.

2. D/T hours should be expanded to include the period between 6:00 a.m. and 10:30 a.m. The only trucks that would be clocked-in during this time would be those scheduled for piggy-back pick-up and loading from stock.

Established Demurrage Rates vs. Tariff Rates

While verifying the demurrage rates charged by the various carriers, we noted the following:

Document	Date	Rate
Ltr. of agreement to J. Gray Trans.	12/14/67	1st hour - no charge After 1st hour - $5/hr. or fraction
J. Gray Tariff - MF-ICC No. 2	2/29/69	1st hour - no charge Next 3 hours - $5/hr. After 4th hour - $16.50/hr. or fraction
Ltr. of agreement to H. Crow & Sons	10/12/66	1st hour - no charge After 1st hour - $8.40/hr. or fraction
H. Crow Tariff - MF-ICC No. 18	2/12/63*	1st 30 min. - no charge After 30 min. - $10/hr. or fraction

*Verified as still effective by Cleveland Traffic Department on 1/2/69.

The rates established by letter are the ones currently used for billing purposes, which are contrary to the respective tariffs. Furthermore, a fraction of an hour is calculated at the equivalent percentage of the rate and is not considered a full hour. The other carriers serving Milwaukee Solvay have the same stipulation - "$8.40 per hour or fraction thereof." The calculation of additional minutes is the same.

Recommendation:

Although the above is financially advantageous to Milwaukee Solvay, we question the legality of these arrangements and practices.

We recommend that the Cleveland Traffic and Corporate Departments investigate this matter and determine what, if any, liability might be incurred.

Demurrage Presentation on Financial Statements

Prior to March, 1969, rail demurrage costs were being presented on Administrative & General (A & G) Expense statement as "Demurrage." Truck demurrage expense was included in the account "Operating Supplies" under the classification "Shipping Expense" which is shown on the A & G Statement.

For 1968, rail demurrage totaled $8,481, but certain accrual reversals created a credit balance of $5,229. For the same period, truck demurrage totaled $36,312 of the $43,928 shown as "Operating Supplies."

Recommendations:

We recommended that rail demurrage be so labeled and truck demurrage be shown separately. This recommendation was accepted and is so shown on the March, 1969, financial statements.

Since Shipping Expense is now being presented on the Statement of Income as part of the calculation to arrive at Cost of Foundry Coke Sales and not as a reduction of Gross Margin (as is A & G Expense), we further recommend that Rail Demurrage also be shown as a Shipping Expense instead of an A & G Expense.

TRAFFIC - MISCELLANEOUS

Minimum Shipping Charge Expense

In 1968, under Shipping Expense - Operating Supplies - Other, $6,054 of $6,916 was paid to five of the six trucking firms for the difference in freight on the loaded weight (billed to customer) and 18 tons minimum weight.

Of the $6,054, Glendale Transportation Co. received $5,102. Many of Glendale's container trucks are not designed properly to enable them to carry the minimum weight. Of the 50 loads examined in the selected period, 34 were under the 18-ton minimum with an average of $16\frac{1}{2}$ tons per load.

Weights at the loading point are estimated; actual weight is determined at the truck scale when the truck is ready to leave.

Recommendations:

1. Minimum loaded weights should be re-established to coincide with the carrying capacity of the particular equipment.

2. Weightometers should eventually be installed on all of the key loading belts - loading tracks No. 5 and 6, short-6 loading track and the domestic screening belt.

Discussions with operating personnel indicated that, aside from the accurate loading of cars and trucks, the weightometers would serve other valuable purposes:

a. Accurate verification of shift and daily production yields.

b. An excellent check and control for the amount of production put in inventory, the majority of which is usually put in on an estimated basis.

c. When customer requirements call for a size change and screens are changed accordingly, the effect on yield would be readily determinable.

d. Immediate determination of the weight by size when coke is crushed would permit more accurate crusher settings, thus minimizing the loss to domestic sizes.

e. Finally, with the increased need for measuring the yield of new coal blends, quality evaluation tests could be made immediately and separately.

Document Preparation

1. Regarding the truck B/L, the last two copies in the snap-out form are used to check and verify applicable demurrage charges. If, when writing, a slight movement shifts the top copy, these last two copies may not indicate the correct time of day (A.M. vs. P.M.) the truck was checked in or out.

2. Various hand pressures and writing styles create many illegible or difficult to read copies. Of the 197 B/L's selected, ten percent had no time marked at all.

3. It is a practice for Shipping Department personnel to make up B/L's (especially prior to a weekend) and use the expected date of pick-up as the B/L date. Frequently, the truckers do not come in as expected, arriving earlier or later than scheduled. Consequently, the B/L is incorrectly dated.

4. Finally, B/L No. 16876, dated 3/7/69, showed a time in of 12:20 p.m. and a time out of 3:15 a.m. for which we were billed 1 hour and 55 minutes. We determined that the truck left the morning of March 8. The correct billing should have been 13 hours and 55 minutes.

Recommendations:

We recommend the following:

1. That a time/date punch clock be installed and used to log trucks in and out accurately.

2. The B/L date should be affixed on the day the shipment leaves the property.

PURCHASING

From a file maintained in Cleveland, we made a selection of 32 purchase orders ranging in value from $67.35 to $15,541.04.

Based on our examination we set forth our findings, comments and recommendations.

Purchasing Authority

Discussions with the Purchasing Agent revealed that a member of the operating staff was assuming certain procurement duties.

Accordingly, a limited expansion of our original selection was made and the following was noted:

1. A single vendor was contacted and single quote was received on a new arc-welder (a different model and type than those currently in use). The desired accessories were selected, the approval of the Superintendent and Vice-President was obtained on a Purchase Requisition, which, in turn, was submitted to the Purchasing Agent for action.

2. After conducting a lubrication survey, the individual selected a previously unused supplier - Benz Oil Company - through personal contact with their representative.

3. Purchase of rod mill discharge liners from Jones & Laughlin was also handled in the same manner.

Recommendations:

All purchasing and vendor contacts should be made by or with the knowledge and approval of the designated Purchasing Agent.

With regard to the specific examples:

1. The decision to contact only one welding machine vendor without reference to vendors of the present-type machine (for which an inventory of spares is maintained) is questionable.

2. Inasmuch as Benz Oil Co. is not one of the major companies with which Cleveland maintains a national contract, the present arrangement should be re-evaluated.

3. In keeping with the opening recommendation above, other vendors should have been contacted. Except for the aforementioned situation, (which, according to local management, has been corrected), the purchasing function at this location is being well-handled in accordance with the published purchasing manual.

ACCOUNTS PAYABLE

In conjunction with the purchasing audit selections, we conducted a limited review of the accounts payable function. We reviewed the locally established procedures, as well as making specific tests. The results were as follows.

Accounts Payable Procedures

The procedures as written in September, 1968, appear to be comprehensive. However, there are several areas where there appears to be a duplication of effort. For example:

1. Processing duplicate invoices in the same manner as the original. (All information for accounting and recording purposes appears to come from the original invoice.)

2. Routing the Original Invoice for a complete set of approvals. (Unless the invoice is in some way different, all its details would have been approved on the requisition and corresponding purchase order.)

Recommendations:

We recommend that the procedures be reviewed and the above mentioned items - plus any others - be deleted and/or simplified.

Refundable Errors

During our examination, we noted the below listed discrepancies:

1. Jack Gray Transportation Co. invoice #60605D (3/7/69) overcharged for demurrage on B/L #16881 by $30.00.

2. Midwest Trucking Co. invoice #048289 (3/10/69) erroneously billed $33.60 for delivery to wrong destination.

3. P.O. No. 8792 originally specified "F.O.B. Milw." but the prices were listed as F.O.B. shipping point. A following (12/19/68) change order corrected the prices and F.O.B. instructions. However, shortly after shipment (12/16/68), RR freight bills were received and erroneously paid in the amount of $705.55. Subsequently 1/6/69 , the vendors invoice with freight built into the price was received and paid.

Recommendations:

The above errors appear to have been clerical versus procedural errors. Local management was informed and the amounts indicated have now been recovered.

MISCELLANEOUS

During our examination of refractory brick purchased, we noted that the B/L weight (average weight per brick times the number of each) did not agree with the freight bill weights which, in turn, did not agree with the weight recorded by Milwaukee Solvay scale tickets.

Recommendation:

Discussions with various local personnel and tests performed indicated that the variances were - in these particular cases - understandable and acceptable.

However, we recommend that, for any purchases whose cost is based on weight (brick, steel, soda ash, etc.), comparative records be maintained of the B/L, freight bill and scale ticket weights. Significant and/or continuous variances should be immediately investigated.

EXHIBIT A - INVENTORY BALANCES

Type of Coke	1/1/68 (In Tons)	12/31/68 (In Tons)	Increase (Decrease) (In Tons)	% Increase or (Decrease)
M - 4	8,552	248	(8,304)	(97.1)
M - 3	1,745	733	(1,012)	(58.0)
M - 2	926	2,030	1,104	19.2
M - 1	7,923	5,320	(2,603)	(32.9)
Total Foundry Coke	19,146	8,331	(10,815)	(56.5)
Egg	9,254	8,563	(691)	(7.4)
Range	15,003	7,747	(7,256)	(48.4)
Chestnut	6,287	1,828	(4,459)	(70.9)
Pea	289	23	(266)	(92.0)
Total Domestic Coke	30,833	18,161	(12,672)	(41.1)
Total All Coke	49,979	26,492	(23,487)	(47.0)

EXHIBIT B - DEMURRAGE vs. INVENTORY

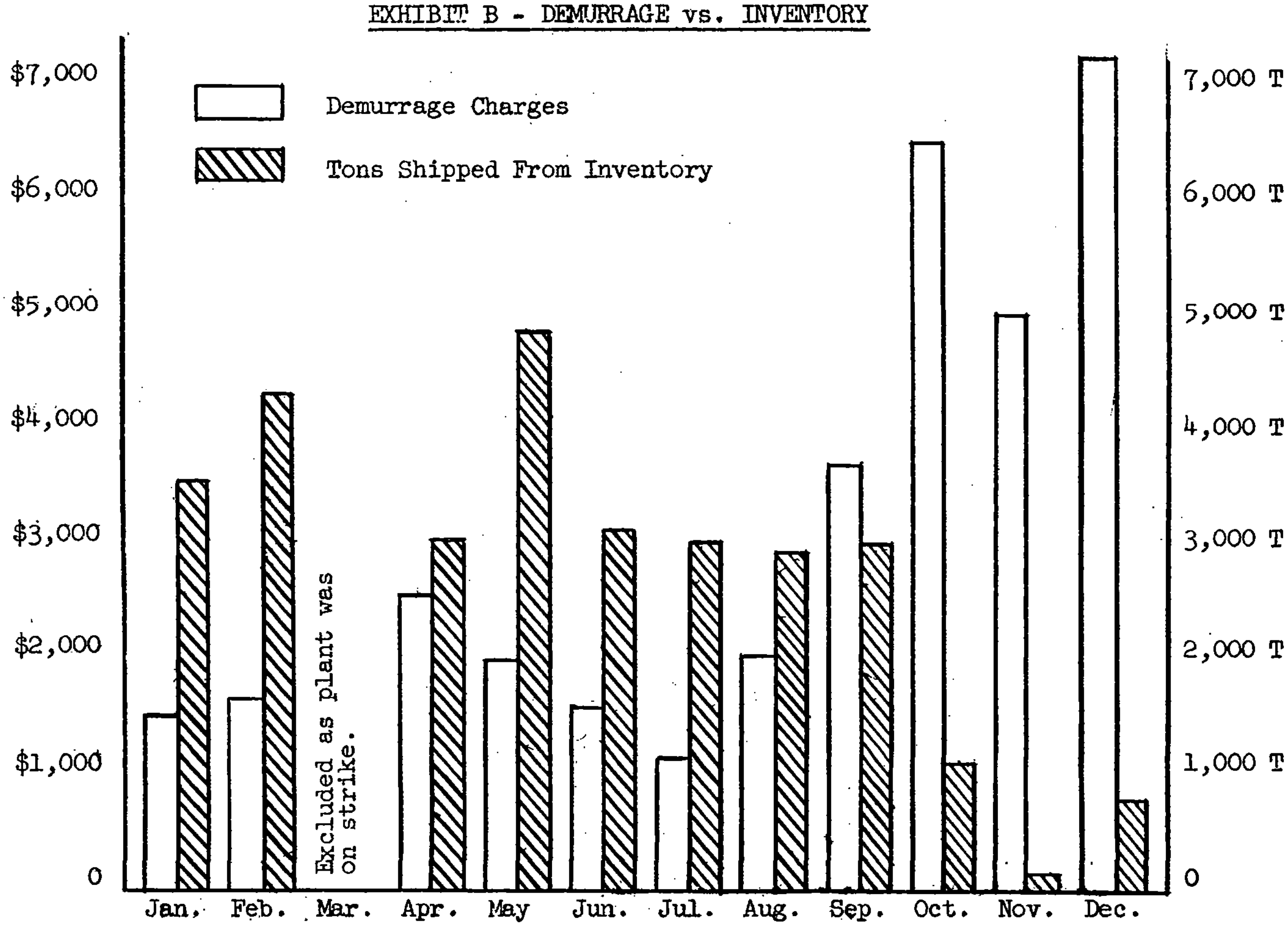


EXHIBIT C - DEMURRAGE BY TRUCKING CO.

Trucker	Jan. 1 - Mar. 14, 1968 Amount 1/1/-3/14	% of Total	Jan. 1 - Mar. 14, 1969 Amount 1/1/-3/14	% of Total
Barry Transfer & Storage Co.	$ 350.70	9.8	$ 1,332.80	7.0
C & D Trucking Co.	14.50	.4	671.50	3.5
Harry Crow & Son, Inc.	456.00	12.7	779.38	4.1
Glendale Transportation Co. Inc.	683.20	19.0	2,674.60	14.0
Jack Gray Transport, Inc.	60.00	1.7	4,667.85	24.4
Midwest Bulk, Inc.	2,022.30	56.4	8,953.00	46.9
D & L Transport	-0-	-0-	17.50	.1
Totals	$3,586.70	100.0	$19,096.63	100.0

EXHIBIT D - INFORMATIONAL SUMMARY OF MAR. 1 - 9, 1969

	Trucking Concern			
	Midwest Bulk Inc.	Jack Gray Transport	Glendale Trans. Co.	Harry Crow & Son, Inc.
Total loads handled	52	31	50	26
Total hours on property	156.15	154.98	51.26	49.24
Total demurrage hours	110.02	124.32	16.59	31.74
Average hours on property/load	3.00	5.00	1.03	1.89

	Trucking Concern							
	Midwest Bulk Inc.		Jack Gray Transport		Glendale Trans. Co.		Harry Crow & Son, Inc.	
Type of Coke	Tons Hauled	Dmrg. Cost	Tons Hauled	Dmrg. Cost	Tons Hauled	Dmrg. Cost	Tons Hauled	Dmrg. Cost
M - 4	344.99	$117.43	98.59	$ 51.25	564.02	$107.77	21.06	-0-
M - 3	298.24	494.68	174.63	383.70	286.81	19.66	194.97	$110.63
M - 2	367.35	312.06	165.67	151.60	21.89	8.40	132.94	128.10
M - 1	47.21	-0-	78.17	20.90	21.44	3.53	64.19	-0-
Rock Wool	-0-	-0-	106.23	14.15	-0-	-0-	-0-	-0-
Other	-0-	-0-	-0-	-0-	-0-	-0-	139.12	27.89
Totals	1,057.79	$924.17	623.29	$621.60	894.16	$139.36	552.28	$266.62

	Midwest Bulk Inc.	Jack Gray Transport	Glendale Trans. Co.	Harry Crow & Son, Inc.
Average Demurrage Cost/Ton - Total	$ .874	$ .997	$.156	$.483
Average Demurrage Cost/Ton - M-4	.34	.52	.19	-0-
Average Demurrage Cost/Ton - M-3	1.66	2.20	.07	.57
Average Demurrage Cost/Ton - M-2	.85	.92	.38	.96
Average Demurrage Cost/Ton - M-1	-0-	.27	.16	-0-
Average Demurrage Cost/Ton - Rock Wool	-0-	.13	-0-	-0-
Average Demurrage Cost/Ton - Other	-0-	-0-	-0-	.20
Foundry Coke Sales (Less Allow. to meet competition)*	$39,039.05	$20,251.57	$33,083.92	$15,143.86
Tons invoiced*	1,057.79	623.29	894.16	413.16
Selling Price/Ton	36.91	32.49	37.00	36.65
Less: Cost of Sales **	(29.24)	(29.24)	(29.24)	(29.24)
Less: Demurrage/Ton (Foundry Coke Only)	(.87)	(1.00)	(.16)	(.58)
Net Profit	$ 6.80	$ 2.25	$ 7.60	$ 6.83

*Actual for the nine-day period.
**Based on the three-month period ended 3/31/69.

NOTE: The trucking concerns listed above accounted for 85% of the tonnage shipped in period selected.

CLEVELAND CLIFFS #5984

1971 CORPORATE DOCUMENTS

PICKANDS MATHER & COMPANY

MILWAUKEE SOLVAY COKE COMPANY

DIAMOND SHAMROCK CORPORATION

OPERATIONS AUDITING DEPARTMENT

Pickands Mather & Co.
2000 Union Commerce Building
Cleveland, Ohio 44115

No. 71-30

September 7, 1971

AUDIT REPORT

Milwaukee Solvay Coke Company

An audit of the Milwaukee Solvay Coke Company has been completed. The primary areas examined were cash, accounts receivable, inventories, accounts payable, production, costs, and payrolls.

The primary purpose of the audit was to evaluate the controls in the above mentioned areas, and to determine what policies, procedures, and practices are in force which insure management that transactions are being handled in the best interests of the company.

As a result of the audit, we have included suggestions which we feel may improve the efficiency or quality of the work performed. The most important point in the report is the suggestion to reconcile production and shipments on a daily basis.

Prior to issuance of the report the concerned departments and individuals, both in Cleveland and Milwaukee, were given the opportunity to review and comment on the contents of this report.

W. J. Switaj

Audited By:

W. S. Creighton
A. J. Morrow

Distribution:

R. S. Carey	P. J. Joyce
A. H. Ford	W. E. Snavely
E. Hoyt III	G. A. Wilken (2)*

*Copy for transmittal to J. R. Lenz

Production and Shipping

Using records maintained in the shipping department we were unable to reconcile production with shipments for the month of April, 1971, or any day within the month. Consideration was given to shipments from stock and production to stock.

The daily production sheet lists the scale weight of production stocked and production shipped. The daily shipping sheet lists shipments from stock and from production.

The differences in our reconciliation of these two sheets are as follows:

Type of Coke	Tons	Inventory Value Per Ton	Inventory Value
M-4	-0-	$ 47.910	$ - 0 -
M-3	74	47.910	3,545
M-2	38	47.910	1,821
M-1	(38)	47.910	(1,821)
Blast Furnace	(29)	15.428	(447)
Egg	222	18.228	4,047
Range	69	17.277	1,199
Chestnut	77	14.868	1,145
Pea	17	18.030	307
Rockwool	(56)	21.180	(1,192)
	374		$ 8,604

( ) Indicate shipping over production.

In accounting for production and shipments the Report of Operations forces the difference to (or from) inventory.

The physical inventory of coke in the fall may indicate whether the tons should have gone to inventory.

Comments:

We suggest that production be reconciled to shipments daily. This should not take more than one-quarter of an hour per day.

Stores Inventory

During 1969 it was decided to discontinue accounting control of all but three classes of stores inventory. Our test counts of stores disclosed discrepancies on 4 of 16 items counted. Stores are not stored in controlled storerooms; it is the responsibility of the area foreman to prepare withdraw tickets.

The three remaining classes, Iron and Steel, Refractories, and Belting, are considered critical in terms of ordering and usage.

Comments:

It would be impractical to establish storeroom control over stores items. We therefore recommend that all individuals that use this material be constantly reminded that the withdrawal slip helps insure that an adequate supply of goods is maintained. On critical items it would be prudent to take a spot inventory periodically.

Rail Demurrage

During the winter months coal was received by rail. The plant was not designed for rail receipt; also, during the winter much of it was frozen. Consequently cars were held in excess of the two or four days (two extra days for frozen coal) free time allowed by the railroads. The plant expensed demurrage at the time it was incurred.

Based on the unpaid demurrage bills on hand it appeared that the plant may have over expensed rail demurrage by as much as $8,000.

Comments:

We suggest no adjustment be made to this account until all rail coal demurrage bills are paid which will probably be July or August. At that time the account should be analyzed in detail and adjusted accordingly.

Coal Yields

During the first third of 1971 the yield of high grade foundry coke has been below previous years. Personnel at the plant attribute this to the inability to get high quality coal. Due to low inventory levels coal had to be received by rail during the winter which was not of usual quality. Also, by reducing inventory, older coal which had begun to deteriorate had to be used.

Comments:

Our review of the coal analyses by plant personnel did indicate that the coal was not of the usual quality. However, the plant had no choice but to accept it to maintain production.

Truck Demurrage

Truck demurrage expense for the first four months of 1971 was $13,500. As mentioned earlier most shipments are made directly from production; due to the lower yields of foundry coke it is taking longer to load trucks. Demurrage accumulates at the rate of $8.40 per hour after the first hour.

Per plant personnel any attempt to store coke results in more breakage of chunks due to increase handling. The larger the chunks the higher the grade of coke; therefore the plant cannot afford any more breakdown with current yields. Consequently stockpiling or using loading bins is not practicable.

In reviewing the truck scheduling practices it was noted that there has been a definite improvement since our previous review. Trucks are now scheduled for specific times and are not paid for early arrivals.

Payroll

Our review of payroll procedures and our test of transactions indicated that the payroll function was being properly handled. It was noted that for the first four months of 1971 the wrong Wisconsin State Income Tax withholding schedule was used on the NCR machine. This situation has been corrected.

Accounts Receivable

Included in the $16,000 miscellaneous receivables is $14,000 worth of property damage and business interruption insurance claims. Total plant receivables amounted to $46,500; the allowance for doubtful accounts is nearly $3,800. Our review of the accounts indicated that the chance of loss is minimal. The reserve has not changed in over two years.

Comments:

While technically the reserve may be over-stated, the amount involved is immaterial.

Accounts Payable

The accounts payable function was reviewed and was performing satisfactorily.

Coal Physical Inventory

Subsequent to our audit we observed the physical inventory of the coal stockpile. The result of the physical was a write-up of 16,700 tons valued at $310,000.

A large write-up was anticipated. During the early part of the year the plant removed coal from beneath the baseline of the pile. In effect coal was being charged out which had previously been written off.

Comments:

Our observation of the physical measuring and review of the resulting calculations indicated the results of the physical inventory are reasonably stated.

CLEVELAND CLIFFS #5984

1975 CORPORATE DOCUMENTS

PICKANDS MATHER & CO.

REPORT OF INTERNAL AUDIT

Review of the System of Internal Control
and Accounting Procedures Relating to
the Coal and Coke Inventories at
Milwaukee Solvay Coke Co.

November 1975

MOORE McCORMACK RESOURCES, INC.
ONE LANDMARK SQUARE
STAMFORD, CONNECTICUT 06901

PICKANDS MATHER & CO.

REPORT OF INTERNAL AUDIT

Review of the System of Internal Control and Accounting Procedures Relating to the Coal and Coke Inventories at Milwaukee Solvay Coke Co.

November 1975

TABLE OF CONTENTS

I. INTRODUCTION

We have reviewed the system of internal control and accounting procedures relating to the coal and coke inventories at Milwaukee Solvay Coke Co. (the plant), a division of Pickands Mather & Co. (PM). As part of our examination, we also reviewed the adequacy of the procedures utilized in taking a coal physical inventory.

II. OVERVIEW

This section is included in this report primarily to provide the reader with certain financial and other background information concerning the plant and its inventory system.

- The Plant

  The Milwaukee plant manufactures foundry and other coke and related by-products (tar). It produced approximately 114,000 tons of foundry coke during the first nine months of 1975 from its 100 coke ovens.

  The primary raw material in the manufacture of coke is coal which is stored at the plant on an 8 acre coal storage field. The coal storage field has a maximum storage capacity of approximately 400,000 tons.

- Financial Information

  The following is selected financial information concerning the plant's results of operations for the nine months ended September 30, 1975:

Sales	$ 14,073,000
Cost of sales	(12,425,000)
Gross profit	$ 1,648,000
Administrative, selling and general	(895,000)
State income taxes	(48,000)
Net income	$ 705,000

At September 30, 1975, coal and coke inventories amounting to $4,282,000 represented approximately 85% of the plant's total assets.

- *Coal Inventory*

Over the past few years the plant has been experiencing variances between coal tonnage determined by way of a physical inventory and the tonnage reflected in the accounting records. The following tabulation will summarize these variances:

Year	Physical inventory over (under) book inventory: Tons	Amount
1968	(3,401)	$ (43,000)
1969	(6,082)	(79,000)
1970	(9,148)	(116,000)
1971	16,724	310,000
1972	25,895	513,000
1973	6,930	149,000
1974	25,988	1,401,000
1975	3,217	201,000

These variances have been attributable to certain factors, the most significant being coal field base level.

In prior years, the plant established that the base level (ground level) of the coal field was a certain distance (approximately 56 feet) below the coal bridge. It is from the coal bridge that plant personnel make height and area measurements of the coal piles when taking a coal physical inventory; therefore, the distance between the bridge and the base level plays a significant role in determining the actual height of a coal pile.

Since the base level was established as being 56 feet from the coal bridge, plant personnel used this statistic whenever they performed a physical inventory and all height measurements were based on this. Over the years, however, the weight of the coal piles on the base made the established base level recede (sink). When this occurred, inventory underages (physical quantity less than book quantity) were being recorded in the accounts. These underages did not necessarily exist because the coal which sank below the established base level was not inventoried, i.e. height measurements which were based on 56 feet were not correct since the base level may now have been 60 feet from the coal bridge.

In order to correct this, the coal field was "mined", i.e. all coal which receded below the established base level was taken out and clay and dirt were put into the "mined" area to re-establish the base level. When this happened inventory overages (physical quantity greater than book quantity) occurred. It is estimated that approximately 45,000 tons of coal were "mined" from the coal field.

As stated previously, although there are certain other factors involved in the inventory variances, the coal field base level was the most significant.

III. OBSERVATIONS AND RECOMMENDATIONS

The following are our observations and recommendations resulting from the review of the coal and coke inventory system.

- **Discount Factor**

  Coal tonnage determined by a physical inventory is discounted by 5% whenever the tonnage inventoried exceeds the tonnage recorded in the accounting records. When the tonnage inventoried is less than the tonnage recorded in the accounting records, the 5% discount factor is not applied.

  The primary purpose for the utilization of the 5% discount factor is to recognize error probabilities in the physical inventory procedures. We concur with this since there are many estimates involved in performing a physical inventory of coal piles; however, we believe that the 5% discount factor should also be applied to underages (physical quantity less than book quantity) in addition to overages (physical quantity greater than book quantity) since the error probability applies equally to both. To illustrate the current policy, the following is a hypothetical example:

Type of coal	Tons: Physical inventory	Tons: Book inventory	Physical inventory over (under) book inventory
High volatile	69,000	42,000	27,000
Low volatile	27,000	33,000	(6,000)
	96,000	75,000	21,000
5% discount factor applied only to high volatile coal physical inventory (5% of 69,000 tons)			(3,450)
Net tonnage adjustment			17,550

As illustrated above, the 5% discount factor was only applied to the high volatile coal physical inventory. The physical quantity of low volatile coal was recorded in its entirety since it was less than the book inventory. If the 5% discount factor was applied in the above example to the entire physical inventory of 96,000 tons, the adjustment to the net income, based on a coal cost of $60.00 per ton, would have been decreased by approximately $80,000.

Recommendation

We suggest that the total tonnage determined by a physical inventory be discounted by 5%.

- Bulk Density Conversion Factors

The bulk density conversion factors (pounds of coal per cubic foot) used in computing the tonnage of a coal pile have not been reviewed since 1953. These factors play a significant role in determining the total coal tonnage resulting from a physical inventory, and any distortion in these factors can lead to erroneous inventory adjustments.

Recommendation

Since a significant period of time has elapsed since the bulk density conversion factors were reviewed, we suggest that a survey be conducted the next time a physical inventory is taken to determine whether or not the factors currently in use are accurate. Furthermore, these factors should be reviewed and updated at each subsequent physical inventory.

- Safety Factor

Actual coal quantities sent daily into production are increased by a 1% safety factor. This safety factor is used to account for coal loss due to handling procedures and the elements (wind). To illustrate, if 600 tons of coal were sent daily into production, the coal loss based on the 1% safety factor would be 6 tons. Hence, cost of sales would be charged with 606 tons of coal. On an annual basis, the 1% safety factor can amount to 2,500 tons of coal which, based on a coal cost of $60.00 per ton, would represent a charge against cost of sales of approximately $150,000.

Recommendation

We suggest that the safety factor should be reduced to 1/4 of 1%. We base our opinion on the following:

- Over the past few years, coal quantities determined by a physical inventory have been exceeding the quantities recorded in the accounting records. This excess has been attributable, in part, to the 1% safety factor. As a result the interim results of operations are distorted since the inventory adjustment necessary to agree both the physical and book quantities has been offsetting the periodic charge made to cost of sales for the 1% safety factor.
- Plant personnel have been attemtping to minimize wind loss by chemically treating the coal piles.

By adopting this recommendation, we believe that the interim reporting of the plant's results of operations would be improved.

- Annual Physical Inventory

Although the current policy calls for an annual coal physical inventory, consideration has been given towards implementing a semi-annual inventory policy. The primary reason behind this is due to the significant inventory adjustments over the past few years.

While the current policy requires a physical inventory in April, when the coal tonnage is at its lowest point, a semi-annual policy would require an additional inventory sometime in November. At that time coal tonnage is at its highest level and the probability of error in the physical inventory procedures is maximized. Consequently, the risk in distorting net income through an erroneous inventory adjustment is increased.

Recommendation

We suggest that the current policy of performing an annual coal physical inventory in April be continued.

- Coke In Process

The coke work in process inventory was valued on September 30, 1975, as follows:

	Per ton
Cost of coal	$12.50
Conversion cost	11.83
Cost of coke in process	$24.33

c.

The cost of coal used in valuing the coke in process inventory is significantly below the current cost which, for the nine months ended September 30, averaged approximately $60.00 per ton.

If current coal cost was used in valuing the coke in process inventory, the total inventory value at September 30 would have been increased by $37,000.

Recommendation

We suggest that coke in process inventory be valued using the current cost of coal.

- Foundry Coke Inventory Valuation

The ending inventory of foundry coke is currently valued at the lower of cost or market. At September 30, 1975, market, which was lower than cost, was used to value the foundry coke inventory. To illustrate how market price was determined, the following is set forth:

	Per ton
Published selling price of foundry coke	$113.00
Selling commission at 3% of published selling price	(3.00)
Estimated handling charge in preparing coke for shipment	(1.00)
Degradation at 10% of published selling price	(11.00)
Market price of foundry coke	$ 98.00
Production cost of foundry coke	$106.00

A key element in the above computation of market price is degradation. Because of the fragile nature of coke, degradation occurs through handling procedures. In other words, 10,000 tons of foundry coke is really 8,000 tons of foundry and 2,000 tons of other coke (stove coke and coke breeze) because of degradation.

Although the degradation of foundry coke is properly recognized in the accounts whenever a sale is made, for inventory valuation purposes it is not properly recognized. To illustrate, our suggested method of valuing the foundry coke inventory is as follows:

Type of coke	Tons before degradation	Degradation at 20%	Tons after degradation	Cost per ton	Inventory valuation
Foundry	10,833	(2,166)	8,667	$106	$919,000
Stove	-	1,408	1,408	49	69,000
Breeze	17,705	758	18,463	5	92,000
Total inventory value					1,080,000
Inventory value as computed by the plant at September 30					1,135,000
Inventory overvalued					$ 55,000

The significant differences between our computation and the plant's are as follows:

- The plant utilized a 10% degradation factor where we used a 20% factor. It should be noted that a 20% factor is used by the plant whenever a sale is made and foundry coke is prepared for shipment.

- We applied the degradation to coke tonnage whereas the plant applied it to the selling price. It should be noted that the tonnage degrades and not the selling price. Furthermore, if the degradation factor is applied to tonnage rather than selling price, cost ($106 per ton) must be used in valuing the ending inventory since it is less than market ($109 per ton), as adjusted.

- We allocated the foundry coke degradation based on the plant's estimates to stove coke (65%) and coke breeze (35%). In the plant's computation the degradation was not allocated to the other types of coke.

Recommendation

We suggest that the plant's method of valuing the foundry coke ending inventory be changed as follows:

- The degradation percentage should be increased from 10% to 20%.
- Degradation should be applied to tons and not the selling price.
- The tonnage degradation should be allocated to stove coke and coke breeze.

* * * * * * * *

We would like to take this opportunity to express our appreciation for the cooperation and assistance we received during our review. In particular, a special note of thanks is in order for Jerry Lenz, plant vice president, and Gerry Conrad, plant controller. Their suggestions and guidance certainly aided us in our review.

Very truly yours,
Moore McCormack Resources, Inc.

Joseph P. Liotta

Joseph P. Liotta

Vito M. DeMaio

Vito M. DeMaio

November 1975
Stamford, Connecticut

CLEVELAND CLIFFS #5984

1978 CORPORATE DOCUMENTS

Moore McCormack Resources, Inc.
One Landmark Square • Stamford, Connecticut 06901 • Telephone (203) 358-2200

September 12, 1978

Mr. J. R. Lenz
Vice President
Milwaukee Solvay Coke Company
Milwaukee, Wisconsin 53204

Dear Jerry:

I have enclosed a copy of the detail on the interim review for Milwaukee Solvay which I completed during the second week of August. The primary purpose of the review was to obtain an understanding of the company's activities as reflected in its financial statements at June 30, 1978 and to review the present status of the accounting system. This was accomplished as a result of an analytical review of the financial data and discussions with the company's personnel.

I am pleased to note that the management letter comments relative to the year end audit work of December 31, 1977 have been satisfied. On the basis of my involvement in this brief review nothing came to my attention which caused me to be concerned about either the nature of the company's activities or its accounting for those activities. If you have any questions about the material, please don't hesitate to contact me in Stamford.

Respectfully,

James W. Toman

James W. Toman

JMT:cn

cc: J. T. Ansberry
G. H. Conrad
P. J. Evanson
R. M. Kennedy
P. R. Tregurtha

MILWAUKEE SOLVAY COKE CO.

ANALYTICAL REVIEW

6/30/78

Assets	3/31/78	6/30/78	6/30/77
Continental Illinois Bank			
& Trust - Commercial	$ 26,486	$ 1,408	$ 54,437
Hourly Payroll	5,000	5,000	5,000
Salaried	3,000	3,000	3,000
Petty Cash	750	750	750
	35,236	10,158	63,187
Accounts Receivable:			
Trade - By Products	81,435	42,170	54,396
Miscellaneous	9,702	16,345	19,588
Employee	386	164	120
Travel Advance	392	-	185
	91,915	58,679	74,289
Reserve for Doubtful Accounts	(3,785)	(3,785)	(3,785)
Inventories:			
Finished & In-process Coke			
Foundry, etc.	138,460	204,574	237,236
Tar	10,174	7,371	10,174
Raw Materials - Coal	3,480,695	4,320,132	2,215,812
Coke-Breeze	30,795	32,078	62,496
Purchased Coke	-	191,852	-
	3,660,124	4,756,007	2,525,718
Other Materials & Supplies	223,390	108,637	140,466
Prepaid Insurance, etc.	70,672	55,144	59,172
Reserve for Oven Relining	-	-	40,832
Total Current Assets	4,077,552	4,984,840	2,899,879
Land	438,900	438,900	438,900
Plant & Equipment:			
Machinery & equipment - used	103,261,	103,261	103,261
new	210,746	350,728	191,316
Motor Vehicles - used	7,800	7,800	7,800
new	37,419	42,696	27,491
	359,226	504,485	329,868
Construction in progress	86,320	178,931	-
Reserve for depreciation	(122,570)	(149,534)	(81,637)
Total Capital Assets	761,876	972,782	687,131
Total Assets	$4,839,428	$5,957,622	$3,587,010

MILWAUKEE SOLVAY COKE CO.

ANALYTICAL REVIEW

6/30/78

Liabilities	3/31/78	6/30/78	6/30/77
Vouchers Payable	$ 3,483	79,267	64,744
Lake Coal Demurrage	30,045	13,500	14,481
Accrued Hourly Payroll	52,089	72,648	56,437
Acrrued Vacation Pay	249,082	242,958	226,420
	334,699	408,373	362,082
Accrued Taxes:			
Real Estate and Personal Property	106,648	101,488	106,501
FICA	10,211	6,163	8,778
Federal Unemployment	7,350	3,527	1,483
State Unemployment	36,748	17,637	18,057
	160,957	128,815	134,819
Other Accrued Liabilities:			
Water, Power & Other	59,180	21,183	19,701
Income Taxes Withheld -			
Federal	28,208	16,333	22,874
Wisc.	13,794	10,281	11,520
FICA	10,211	6,163	8,778
Pension Contribution	7,991	8,813	7,821
Savings Bond	338	404	436
United Fund	276	261	228
Unclaimed Wages	686	686	686
Illinois Use Tax	10,139	10,483	10,480
Wisc. Sales & Use Tax	39,408	32,045	35,677
Oven Relining	11,059	75,000	-
Accrued Coal Purchases	117,448	74,585	108,179
	298,738	256,237	226,380
Total Current Liabilities	794,394	793,425	723,281
Home Office Account:			
Beginning Balance	7,729,035	7,729,035	4,814,070
Profit	778,003	1,765,678	1,432,477
Inter-company Charges (credits) - net	(4,462,004)	(4,330,516)	(3,382,818)
Balance - End of Year	4,045,034	5,164,197	2,863,729
Total Liabilities	$4,839,428	$5,957,622	$3,587,010

MILWAUKEE SOLVAY COKE CO.

ANALYTICAL REVIEW

6/30/78

Income Statement	3/31/78	6/30/78	6/30/77
Tons:			
Foundry:			
Sold	41,815	82,310	88,555
Produced	41,576	83,336	86,657
Other:			
Sold	8,437	17,942	15,123
Produced	7,907	16,604	17,170
Sales:			
Foundry Coke	$5,588,030	$11,188,395	$11,032,178
Other Coke	741,438	1,539,140	1,340,947
Tar	127,535	261,787	188,411
Purchased	33,818	96,538	-
Total Sales	6,490,821	13,085,860	12,561,536
Cost of Sales:			
Coal Coked	3,744,560	7,421,910	7,782,227
Plant Operating Expense	1,511,532	3,039,781	2,555,414
Cost of Production	5,256,092	10,461,691	10,337,641
Inv. (Increase) Decrease	13,229	(50,082)	126,228
Cost of Products Sold	5,269,321	10,411,609	10,463,869
Shipping Expense	(1,343)	(3,430)	(18,489)
Coke Purchased	30,345	78,899	-
Total Cost of Sales	5,298,323	10,487,078	10,445,380
Gross Profit on Sales	1,192,498	2,598,782	2,116,156
Other Costs:			
Admin. Selling & General	413,819	831,173	683,679
Sales Commission on Purchased Coke	676	1,931	-
State Income Tax:			
Current	-	-	-
Adjustment of Prior Year	-	-	-
Total Other	414,495	833,104	683,679
Net Income (loss)	$ 778,003	$1,765,678	$1,432,477

MILWAUKEE SOLVAY COKE CO.

ANALYTICAL REVIEW

6/30/78

Plant Operating Expenses	3/31/78	6/30/78	6/30/77
Coal Unloading & Processing	$ 100,323	$ 235,565	$ 183,771
Oven Operations	309,059	647,949	528,517
Coak Material Handling	206,825	412,031	345,266
Water, Steam & Power	249,235	419,069	365,885
General Plant & Yard	412,228	848,093	822,175
Pollution Control	11,627	20,897	24,097
Subtotal	1,289,297	2,583,604	2,269,711
Employee Group Insurance:			
Life & Health - Hourly	94,583	186,340	79,844
Medicare Refund	3,850	7,723	7,006
Total Group Insurance	98,433	194,063	86,850
Pension Contribution - Hourly	22,470	46,080	33,100
Taxes:			
Payroll - Hourly	64,200	130,600	106,800
Real & Personal Property	22,500	45,000	45,000
Total Taxes	86,700	175,600	151,800
Depreciation	14,632	40,434	13,953
Total Plant Operating	$1,511,532	$3,039,781	$2,555,414

MILWAUKEE SOLVAY COKE CO.

ANALYTICAL REVIEW

6/30/78

Administrative Selling & General	3/31/78	6/30/78	6/30/77
Salaries & Wages:			
Salary	$ 66,038	$ 138,246	$ 109,831
Wages - Hourly	16,365	33,007	28,072
Repair-Labor-Hourly	-	-	-
Vacation and Holiday Pay	1,520	3,216	2,596
Jury Duty	-	-	-
Bereavement Pay	988	1,507	1,312
Total Salaries and Wages	84,911	175,976	141,811
T. & E.	1,799	3,683	3,579
R & M Office Machinery & Equipment	1,197	2,368	2,213
Office Machinery & Supplies	2,116	4,878	3,145
Telephone & Postage	5,652	11,172	10,136
Due and Subscriptions	479	5,656	5,527
Rentals	659	1,316	1,490
Legal & Professional Services	12,282	26,538	8,583
Contributions	1,675	2,560	1,770
Insurance, Physical Damage Liability & Workmen's Compensation	25,354	63,622	69,911
Insurance Group Life & Health - Salary	15,459	32,142	25,341
Pension Fund Contribution - Salary	17,120	36,080	20,000
Railroad & Boat Demurrage - Coal	2,370	7,170	7,040
Miscellaneous	39,929	40,930	3,321
Passenger - Auto Expense	315	787	459
Janitor Service & Supply	4,308	8,602	7,504
Welfare Expense, Safety & First Aid	7,572	16,649	11,628
Industrial Relations - Material & Other	235	1,969	762
Building & Structure Maintenance	130	130	-
Taxes - Payroll - Salary	9,600	19,200	18,480
Real & Personal Property 25%	7,500	15,000	15,000
Depreciation	856	2,207	1,272
Management Improvement Program	-	-	-
Scrap Sales & Misc. Income	(2,647)	(7,510)	(4,713)
Home Office Charge	48,359	105,497	81,958
Selling Expense - PM & Co.	126,589	254,551	247,462
Total Administrative	$ 413,819	$ 831,173	$ 683,679
Shipping Expense:			
Salaries	3,868	9,051	6,585
Vacation & Holiday	916	1,459	792
Repair Labor	10,816	16,586	9,763
Operating Supplies	1,291	4,638	5,653
Repair Material	5,950	14,891	6,216
Truck Demmurage	5,713	8,448	3,120
Outside Truck Hire	-	-	-
Truck Loading Charges	(29,526)	(57,713)	(56,488)
Railroad Demmurage - Coke	1,620	3,640	5,870
Railroad Container Loading Charge	(1,991)	(4,430)	-
Total Shipping	$ (1,343)	$ (3,430)	$ (18,489)

ASSETS

Cash	3/31/78	6/30/78	6/30/77
Commercial Account	$26,486	$ 1,408	$54,437

The decline in cash of approximately $53,000 was due to two factors. When the cash projections are made up a $10,000 cushion is always added in. However, in June 1978 the $10,000 amount was subtracted instead of added thereby creating a $20,000 lower cash projection than should have been the case if it had been done correctly. The other factor is that in June of 1977 certain items that were expected to be paid never came through leaving a much higher cash balance than was projected. They attempt to maintain a cash balance of approximately $30,000.

Accounts Receivable	3/31/78	6/30/78	6/30/77
Trade By-Products	$81,435	$42,170	$54,396

The trade receivable for by-products relates to June sales to Koppers Inc. of tar which is produced by the coking ovens.

Reserve for Doubtful Accounts	3/31/78	6/30/78	6/30/77
	$ 3,785	$ 3,785	$ 3,785

This amount represents a reserve for doubtful accounts which was established in 1962. No additional documentation could be found to support the balance other than the original journal entry. Currently, all receivables are processed through Pickands Mather who guarantees their collection.

Inventories	3/31/78	6/30/78	6/30/77
Raw Material Coal	$3,480,695	$4,320,132	$2,215,812

The reason for the variance in the amount of coal being carried at this time is simply one of overbuying. In anticipation of the coke strike this winter much larger quantities of coal were bought than is usual. Since there was no way of estimating the length of the strike, it was necessary to stockpile so that production would not be stopped because of a lack of coal. Therefore, we now find ourselves with a much larger supply of coal than a year ago at this time.

	3/31/78	6/30/78	6/30/77
Raw Materials - Coke-Breeze	$30,795	$32,078	$62,496

The decrease in the breeze inventory is caused by the fact that we are using more breeze this year than we are producing. In fact, Milwaukee has been forced to purchase breeze from outside sources this year.

	3/31/78	6/30/78	6/30/77
Purchases - Breeze	-	$191,852	-

Milwaukee has been using more breeze than it has been producing and therefore has made it necessary to purchase breeze from outside sources. Last year we were able to produce enough breeze to meet our demands and therefore there was no need to purchase from the outside.

	3/31/78	6/30/78	6/30/77
Other Materials and Supplies	$233,390	$108,637	$140,466

The June 30, 1978 balance is composed of approximately $28,000 of steel products and $81,000 of oven brick. The steel products will be used in future refurbishments and the brick is used to reline the ovens.

Plant and Equipment	3/31/78	6/30/78	6/30/77
Machinery and Equipment-new	$210,746	$350,728	$191,316

The increase of approximately $160,000 is accounted for by the capitalizing of oven relining at a cost of $141,000 and the purchase of two Hobart welders ($7,000). An additional $12,000 was spent on the purchase of ten new truck containers. In May 1978 the IRS told Milwaukee they must now begin to capitalize oven relining rather than expensing it as has been the procedure in the past.

	3/31/78	6/30/78	6/30/77
Motor Vehicles - new	$37,419	$42,696	$27,491

The purchase of three Chevrolet pick-up trucks for approximately $15,000 represents the increase in this account.

	3/31/78	6/30/78	6/30/77
Construction in Progress	$86,320	$178,931	-

The balance in this account is made up of an 18 ton crane ($45,000) and pollution control equipment ($134,000). Pickands Mather has purchased all the pollution control equipment for Milwaukee.

LIABILITIES

Lake Coal Demmurage	3/31/78	6/30/78	6/30/77
	$30,045	$13,500	$14,481

This account represents railroad demurrage for coal transferred from mine sites to the vessels for lake shipment.

Accrued Hourly Payroll	3/31/78	6/30/78	6/30/77
	$52,089	$72,648	$56,437

The increase in this account is reflective of the number of days in the accrual.

Accrued Vacation Pay	3/31/78	6/30/78	6/30/77
	$249,082	$242,958	$226,420

This account includes amounts for vacation earned in the current year, but payable in the subsequent year. This policy is consistent with other Pickands Mather units.

Oven Relining	3/31/78	6/30/78	6/30/77
	$11,059	$75,000	-

These amounts represent accrued expenses related to the relining of the ovens. This amount is amortized over the course of the fiscal year. However, in May 1978 the IRS ruled that the oven relining must be capitalized rather than expensed. The reserve account was zeroed out in July of 1978.

Accrued Coal Purchases	3/31/78	6/30/78	6/30/77
	$117,448	$74,585	$108,179

This account represents the variance between the interim coal purchase price and the projected annual coal purchase price which is used in charging cost of production. Inventory is being reduced at the current purchase price for the period. However, the cost of production is being charged at the projected annual purchase price, the temporary difference being charged to this account. At year-end the projected price should equal the annual overage. There should be no variance making the account balance zero.

Accrued Real Estate & Personal Property	3/31/78	6/30/78	6/30/77
	$106,648	$101,488	$106,501

The 1978 tax accrual is based on the actual tax expense for 1977. The State of Wisconsin has revised the 1978 assessment by increasing taxable machinery and equipment approximately $274,000. Notice of the actual tax assessment for 1978 will be received in September at which time the accrual will be revised.

INCOME STATEMENT

Coke Sales and Operating Income

	12/31/77	3/31/78	6/30/78	6/30/77
Tonnage	209,939	50,252	100,252	103,678
Sales	$ 25,732,173	$ 6,490,821	$13,085,860	$12,561,536
Gross Profit on Sales	4,340,649	1,192,498	2,598,782	2,116,156
Gross Profit Percent	17	18	20	17
Net Income	2,847,455	778,003	1,765,678	1,432,477
Net Income as a Percent of Sales	11	12	13	11

The sales in tons are below the previous year; however, there has been an increase in the total dollar value of sales. This is due to a price increase of $5.00 in January 1978 and another increase of $6.00 in April 1978. The current price of foundry coke is $141.00.

140.00

Milwaukee is ahead of plan as of June 1978. The original estimate for sales for the first six months was $12,993,000. The actual sales exceeded this estimate by $92,860.

OPERATING EXPENSES

Plant Operating Expenses	3/31/78	6/30/78	6/30/77
	$1,289,297	$2,583,694	$2,269,711

Plant operating expenses have increased approximately $314,000 over the same period last year. The increase can be attributed to several factors. A new labor contract was signed last October which has led to a significant increase in payroll.

In discussions with company personnel we were told that there has been a strong effort to increase repairs and maintenance on both the ovens and the plant in general. The repair and maintenance had been scaled down in the past few years, but now that the company is showing increased profits there has been a concerted effort to get necessary repairs made. In an effort to accomplish this, approximately ten men have been hired to bolster the repair crews.

Third, a major overhaul of the water pumps caused operating expenses to rise.

Employee Group Insurance

	3/31/78	6/30/78	6/30/77
Life and Health - Hourly	$94,583	$186,340	$79,844

The very large increase in this account can be attributed to two main factors. First, the current year's figures include a new dental plan which has greatly added to the cost of the insurance.

Second, last year's figure was unusually low due to a credit received from Metropolitan Life Insurance Company for overpayment of the previous year's premiums. This credit was received from the home office in March 1977.

Taxes

Payroll - Hourly	3/31/78	6/30/78	6/30/77
	$64,200	$130,600	$106,800

This account is made up of the employer's portion of the F.I.C.A. and Federal and State unemployment taxes.

ADMINISTRATIVE AND GENERAL EXPENSES

Legal and Professional Services	3/31/78	6/30/78	6/30/77
	$12,282	$26,538	$ 8,583

There are two significant reasons for the large increase in this account. Legal fees are much higher due to the summons and complaint in the State Court of Wisconsin regarding Environmental Regulation Violations.

Second, additional pension plan work has increased the fees of our outside auditors and actuaries.

Pension Fund Contribution	3/31/78	6/30/78	6/30/77
	$17,120	$36,080	$20,000

A retroactive adjustment back to January, 1976 was booked in 1978 causing the large increase in the pension fund contribution.

Miscellaneous	3/31/78	6/30/78	6/30/77
	$39,929	$40,930	$ 3,321

The large increase in this account is due to a penalty levied against Milwaukee by the State of Wisconsin for pollution violations. The fine was paid in February 1978 in the amount of $38,325. The fine covers the period from May 1, 1975 to May 1, 1978.

Welfare Expense, Safety and First Aid	3/31/78	6/30/78	6/30/77
	$ 7,572	$16,649	$11,628

The purchase of new dust masks, safety signs and fire extinguishers were the reason for the increase in this account. These purchases were made in an effort to comply with OSHA and labor union requirements.

Home Office Charge	3/31/78	6/30/78	6/30/77
	$48,359	$105,497	$81,958

This account includes the salaries and fringe benefits of Mr. G. Wilkin and Mr. J. Lenz, plus other sundry charges for telephone and travel and entertainment expenses.

SHIPPING EXPENSES

Repair Labor	3/31/78	6/30/78	6/30/77
	$10,816	$16,586	$ 9,763

This account indicates the increased work being done on the truck containers. As has been mentioned previously this reflects the effort to improve plant maintenance.

Repair Material	3/31/78	6/30/78	6/30/77
	$ 5,950	$14,891	$ 6,216

The increase in this account of approximately $8,700 can be attributed to the purchase of materials for repair of the truck containers.

Truck Demurrage	3/31/78	6/30/78	6/30/77
	$ 5,713	$ 8,448	$ 3,120

This account is made up of amounts paid to shippers when trucks are delayed prior to the transfer of coke.

Truck Loading Charges	3/31/78	6/30/78	6/30/77
	($29,526)	($57,713)	($56,488)

The truck loading charge is an additional payment required by Milwaukee Solvay on all coke sales which are shipped by truck.

Railroad Container Loading Charge	3/31/78	6/30/78	6/30/77
	($1,991)	($4,430)	-

Milwaukee Solvay Coke is now charging customers an additional amount for sending coke shipments in containers.

OTHER SIGNIFICANT INFORMATION

Environmental Regulation Violations

On February 10, 1978 in the State Court of Wisconsin, Milwaukee Solvay was ordered to take certain actions necessary to correct its environmental regulation violations. The major steps are cited below.

1. The defendant shall do the following with respect to the operation of its coke ovens at the Milwaukee Solvay Coke Company plant:

   (a) Charging Operations:

      (1) Commence forthwith with the installation of a leveler bar smoke seal for each of its pusher machines.

      (2) Complete and have in operation the said leveler bar smoke seal during all coke oven charging operations by September 1, 1978.

   (b) Pushing Operations:

      (1) May 31, 1978, complete engineering and design for hooded coke oven pushing emission collection system with gas cleaning equipment so as not to exceed .4 pounds of matter per 1,000 pounds of gas.

      (2) July 1, 1979, complete construction of the hooded coke oven pushing emission collection system and have the same in operation.

2. Milwaukee Solvay will pay the State of Wisconsin a forfeiture of $35 per day from May 1, 1975 to July 1, 1979 for a total of $53,270 provided that in the event the construction and commencement of operations of the equipment is completed prior to July 1, 1979, a reduction of $35 for each day prior to July 1, 1979 will be allowed.

3. If completion of the equipment is delayed beyond July 1, 1979 without good cause being shown to the court, Milwaukee Solvay will pay the state $100 for each day after July 1, 1979, until construction is completed and the system is in operation.

Discussions with company personnel indicate that Milwaukee Solvay Coke is on schedule in regard to the time table set up by the State of Wisconsin. They have also paid the state of Wisconsin $38,325 in fines for the period from May 1, 1975 to May 1, 1978.

The initial cost of this project was estimated at 1.7 million dollars, but at this time the cost appears to be closer to 2.4 million dollars.

Real Estate Taxes

In September, 1978 Milwaukee received notification of its 1978 real estate tax assessment. The City of Milwaukee has appraised the land and buildings at a value approximately $1.6 million higher than last year. A rough estimate by Milwaukee indicates that this would raise real estate taxes by $48,000 over last year. Pickands Mather has said they will contest the assessment but the matter is not expected to be settled before November of this year.